

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Original): A recombinant protein comprising (a) an A chain of a ricin-like toxin, (b) a B chain of a ricin-like toxin and (c) a heterologous linker amino acid sequence linking the A and B chains, the linker sequence containing a cleavage recognition site for a disease-specific protease, wherein the A chain or the B chain has at least one glycosylation site.

Claim 2 (Original): The recombinant protein according to claim 1 wherein one or more glycosylation sites have been mutated and can not be glycosylated.

Claim 3 (Currently amended): The recombinant protein according to claim 1 ~~or~~ 2, wherein the B chain has at least one glycosylation site.

Claim 4 (Currently amended): The recombinant protein according to ~~any one of claims 1 to 3~~, wherein only the B chain is glycosylated at B1.

Claim 5 (Currently amended): The recombinant protein according to ~~any one of the claims 1 to 4~~, wherein the recombinant protein has a ricin secretion signal sequence.

Claim 6 (Original): The recombinant protein according to claim 1, wherein the recombinant protein has the amino acid sequence shown in Figure 1 (SEQ ID No. 1) or a fragment or analog thereof.

Claim 7 (Original): The recombinant protein according to claim 1, wherein the recombinant protein has the amino acid sequence shown in Figure 2 (SEQ ID No. 2) or a fragment or analog thereof.

Claim 8 (Original): The recombinant protein according to claim 1, wherein the recombinant protein has the amino acid sequence shown in Figure 3 (SEQ ID No. 3) or a fragment or analog thereof.

Claim 9 (Original): A purified and isolated nucleic acid molecule comprising (a) a nucleotide sequence encoding an A chain of a ricin-like toxin, (b) a nucleotide sequence encoding a B chain of a ricin-like toxin and (c) a nucleotide sequence encoding a heterologous linker amino acid sequence linking the A and B chain, the heterologous linker sequence containing a cleavable recognition site for a disease-specific protease, wherein the nucleotide sequence encoding the A chain or the nucleotide sequence encoding the B chain encodes an amino acid having at least one glycosylation site.

Claim 10 (Original): The nucleic acid molecule according to claim 9 wherein one or more glycosylation sites have been mutated and can not be glycosylated.

Claim 11 (Currently amended): The nucleic acid molecule according to claim 9 ~~or 10~~, wherein the nucleotide sequence of the B chain encodes an amino acid having at least one glycosylation site.

Claim 12 (Currently amended): The nucleic acid molecule according to ~~any one of~~ claims 9 ~~to 14~~, wherein the nucleotide sequence of the B chain encodes an amino acid at B1 having a glycosylation site.

Claim 13 (Currently amended): The nucleic acid molecule according to ~~any one of the~~ claims 9 ~~to 12~~, wherein the nucleic acid molecule encodes a ricin secretion signal sequence.

Claim 14 (Original): The nucleic acid molecule according to claim 9 comprising:

- (a) a nucleic acid sequence as shown in Figure 4 (SEQ.ID.NO.:4), Figure 5 (SEQ.ID.NO.:5) or Figure 6 (SEQ.ID.NO.:6) wherein T can also be U;
- (b) a nucleic acid sequence that is complementary to a nucleic acid sequence of (a);
- (c) a nucleic acid sequence that has substantial sequence homology to a nucleic acid sequence of (a) or (b);
- (d) a nucleic acid sequence that is an analog of a nucleic acid sequence of (a), (b) or (c); or
- (e) a nucleic acid sequence that hybridizes to a nucleic acid sequence of (a), (b), (c) or (d) under stringent hybridization conditions.

Claim 15 (Original): The nucleic acid molecule according to claim 14, wherein the nucleic acid molecule has the nucleic acid sequence shown in Figure 4 (SEQ ID No. 4).

Claim 16 (Original): The nucleic acid molecule according to claim 14, wherein the nucleic acid molecule has the nucleic acid sequence shown in Figure 5 (SEQ ID No. 5).

Claim 17 (Original): The nucleic acid molecule according to claim 14, wherein the nucleic acid molecule has the nucleic acid sequence shown in Figure 6 (SEQ ID No. 6).

Claim 18 (Currently amended): A method of inhibiting or destroying cells affected by a disease, which cells are associated with a protease specific to the disease comprising the steps of:

- (a) preparing a purified and isolated nucleic acid of ~~any one of the claims 9 to 17;~~
- (b) introducing the nucleic acid into a host cell and expressing the nucleic acid in the host cell to obtain a recombinant protein according to ~~any one of the claims 1 to 8;~~
- (c) suspending the protein in a pharmaceutically acceptable carrier, diluent or

excipient, and

(d) contacting the cells with the recombinant protein.

Claims 19-28 (Cancelled).

Claim 29 (Currently amended): A process for preparing a pharmaceutical composition for treating a mammal with cancer, fungal infection, viral infection or parasitic infection, comprising the steps of:

- (a) preparing a purified and isolated nucleic acid according to ~~any one of the claims 9 to 17~~, wherein the linker sequence contains a cleavage recognition site for a cancer, fungal or viral or parasitic protease;
- (b) introducing the nucleic acid into a host cell and expressing the nucleic acid in the host cell to obtain a recombinant protein of ~~any one of the claims 1 to 8~~;
- (c) suspending the protein in a pharmaceutically acceptable carrier, diluent or excipient.

Claim 30 (Currently amended): A process for preparing a pharmaceutical composition for treating a mammal with cancer, comprising the steps of:

- (a) preparing a purified and isolated nucleic acid according to ~~any one of the claims 9 to 17~~, wherein the linker sequence contains a cleavage recognition site for a cancer protease;
- (b) introducing the nucleic acid into a host cell and expressing the nucleic acid in the host cell to obtain a recombinant protein of ~~any one of the claims 1 to 8~~;
- (c) suspending the protein in a pharmaceutically acceptable carrier, diluent or excipient.

Claim 31 (Currently amended): The process according to claim ~~28~~ and 29, wherein the pharmaceutical composition further comprise at least one additional anticancer therapy.

Claim 32 (Original): A process according to claim 31, wherein the additional anticancer therapy is one or more of the following: doxorubicin, cisplatin, cyclophosphamide etoposide, paclitaxel, taxotere, carboplatin, oxaliplatin, 5-fluorouracil, irinotecan, topotecan, vincristine, gemcitabine, epirubicin, capecitabine, and temozolomide.

Claim 33 (Currently amended): A pharmaceutical composition for treating cancer or a fungal, viral, or parasitic infection in an animal comprising the recombinant protein of ~~any one of the claims 1 to 8~~ and a pharmaceutically acceptable carrier, diluent or excipient.

Claim 34 (Currently amended): A pharmaceutical composition for treating cancer or a fungal, viral or parasitic infection in any animal comprising the nucleic acid molecule of ~~any one of the claims 9 to 17~~ and a pharmaceutically acceptable carrier, diluent or excipient.

Claim 35 (Currently amended): A pharmaceutical composition for treating cancer according to claims 33 ~~or 34~~, further comprising at least one additional anticancer therapy.

Claim 36 (Original): A pharmaceutical composition according to claim 35, wherein the additional anticancer therapy is one or more of the following: doxorubicin, cisplatin, cyclophosphamide etoposide, paclitaxel, taxotere, carboplatin, oxaliplatin, 5-fluorouracil, irinotecan, topotecan, vincristine, gemcitabine, epirubicin, capecitabine, and temozolomide.

Claim 37 (New): A method of inhibiting or destroying cells affected by a disease, which cells are associated with a protease specific to the disease comprising administering a recombinant protein according to claim 1 to a cell or animal in need thereof.

Claim 38 (New): The method according to claim 37, wherein the disease is cancer.

Claim 39 (New): The method according to claim 38, further comprising using at least one additional anticancer therapy.

Claim 40 (New): The method according to claim 39, wherein the additional anticancer therapy is one or more of the following: doxorubicin, cisplatin, cyclophosphamide etoposide, paclitaxel, taxotere, carboplatin, oxaliplatin, 5-fluorouracil, irinotecan, topotecan, vincristine, gemcitabine, epirubicin, capecitabine, and temozolomide.

Claim 41 (New): The method according to claim 37 wherein the disease is a viral, fungal or parasitic infection.

Claim 42 (New): A method of inhibiting or destroying cells affected by a disease, which cells are associated with a protease specific to the disease, comprising administering a nucleic acid molecule according to claim 9 to a cell or animal in need thereof.

Claim 43 (New): The method according to claim 42, wherein the disease is cancer.

Claim 44 (New): The method according to claim 43, further comprising using at least one additional anticancer therapy.

Claim 45 (original): The method according to claim 44, wherein the additional anticancer therapy is one or more of the following: doxorubicin, cisplatin, cyclophosphamide etoposide, paclitaxel, taxotere, carboplatin, oxaliplatin, 5-fluorouracil, irinotecan, topotecan, vincristine, gemcitabine, epirubicin, capecitabine, and temozolomide.

Claim 46 (original): The method according to claim 42 wherein the disease is a viral, fungal or parasitic infection.